Health Care
Transformation
Task Force
Partners in Promoting Value

THE NEXT FRONTIER

SPECIALTY INTEGRATION IN VALUE-BASED CARE

© 2024 HCTTF

CONTENTS

Executive Summary **3**

Introduction **4**

Background **5**

Current State **6**

Policymakers 6

Payers 7

Providers 8

Strategic Framework 8

Longitudinal Total Cost of Care 9

Conditions & Episodes 9

Performance Incentives 11

Clinical, Operational, and Financial Considerations **11**

Opportunities **12**

Financial Incentives 12

Non-Financial Incentives 12

Conclusion **13**

Appendix: Payer & Provider Case Studies **19**

Aledade 20

Blue Cross Blue Shield of Michigan 22

Covera Health 24

Evolent 26

Elevance Health 28

Kaiser Permanente 30

OPN Healthcare 33

Oshi Health 35

Strive Health 37

Vori Health 39

Acknowledgements **41**

References **43**

EXECUTIVE SUMMARY

Specialty participation in value-based care (VBC) is a strategic priority for providers, purchasers, payers, and policymakers. Specialty care continues to drive a high proportion of health care spending, making specialist engagement key to achieving the goals of VBC: improving access, quality, and equity, while reducing the total cost of care.

In collaboration with senior leaders at payer, provider, and VBC enabler organizations, the Health Care Transformation Task Force (HCTTF) developed a strategic framework to describe the breadth of specialty VBC models in the public and private sectors:

1. Longitudinal Total Cost of Care
2. Conditions & Episodes
3. Performance Incentives

These three categories may be layered together to align incentives for value, quality, and equity across specialties and organizations.

This resource explores key clinical, operational, and financial considerations for each of the three model types, including:

- High-level opportunities and challenges for each model type
- Examples of each model type using the five specialties highlighted in this resource: orthopedics, oncology, nephrology, gastroenterology, and radiology
- Key care delivery tactics used across model types
- Financial mechanisms, operational considerations, and key challenges for each model type
- Design considerations for episode-based models, including procedural, acute medical, and chronic medical conditions

These considerations are further described in the case studies presented in the appendix, which provide operational insights into how organizations are addressing specialty integration across specialties, model types, and for different populations. The resource concludes by identifying opportunities to increase specialty engagement and integration in VBC.

Future work can focus on implementation resources to support payers, provides, and VBC enablers to get started in specialty integration and build upon their ongoing efforts, while actively engaging patient and consumer perspectives.

INTRODUCTION

Specialty participation in VBC is a strategic priority for providers, purchasers, payers, and policymakers. While most VBC models have focused on increasing access to high-quality primary care, a substantial portion of health care spending continues to be driven by specialty care. Therefore, incorporating specialists – both individual physicians, advanced practice providers, and allied care professionals, as well as the organizations that deliver specialty care – is key to achieving the goals of VBC to improve access, quality, and equity, while reducing the total cost of care.

HCTTF developed this resource to document the current state of VBC specialist engagement in the public and private sectors, including Traditional Medicare, Medicare Advantage (MA), Medicaid, and commercial plans. Drawing on subject matter experts from payer, provider, and VBC enabler organizations, we developed a strategic framework to define the array of specialty VBC models in the market. The resource outlines the opportunities and challenges of each model from clinical, financial, and operational perspectives.

For each model type, we used five key specialties to illustrate how these models are operationalized, including: orthopedics, oncology, nephrology, gastroenterology, and radiology. These specialties were selected to provide a range of clinical conditions – including procedural, acute medical, and chronic conditions – that lend themselves to different VBC models. In addition, each of these specialties are areas of focus for at least three HCTTF member organizations, providing depth of knowledge and a range of perspectives on each specialty.

The resource concludes by identifying opportunities to increase specialty engagement and integration in VBC, using both financial and non-financial incentives. The appendix includes 10 case studies from payers, providers, and VBC enablers that are implementing specialty models. These case studies provide operational insights into how organizations are addressing specialty integration across specialties, model types, and lines of business.

BACKGROUND

Historically, most alternative payment models (APMs) – the financial structures that support VBC delivery – have centered on primary care, with limited opportunities for most specialists to take accountability for total cost of care and outcomes.[i] As of 2023, 30% of oncologists and 28% of nephrologists received bonuses based on their participation in advanced APMs (AAPMs), indicating that these providers met thresholds based on the proportion of patients or payments attributed to an AAPM. However, fewer than 25% of all other specialties received AAPM bonuses. In contrast, 43% of internists and 34% of family physicians achieved an AAPM bonus.[ii]

The differential in specialist and primary care AAPM bonuses reflect the fact that most Medicare AAPMs – which drive the bonuses – have been based on primary care attribution, such as Accountable Care Organizations (ACOs) and patient-centered medical homes. While a smaller number of specialty-based AAPMs exist for oncology and nephrology, those that draw in a broader array of specialists are typically episode-based models that do not have enough volume to meet current AAPM bonus criteria.[iii]

There is strong and growing interest in engaging specialists in VBC among providers, purchasers, payers, and policymakers. As this resource documents, the private sector is especially active in developing arrangements that support innovative care delivery.

CURRENT STATE

Policymakers

The Center for Medicare and Medicaid Innovation (CMMI) named specialist integration as a key element of their 2021 Strategic Refresh.[iv] As the agency responsible for most APMs within the federal government, it outlined four pillars of a 10-year plan to integrate specialists in VBC, including: (1) increasing data transparency, (2) maintaining momentum on episode-based models, (3) creating financial incentives for primary care to engage specialists, and (4) creating financial incentives for specialists to affiliate with population-based models such as ACOs.[v] In 2024, CMMI executed on this strategy by launching the Transforming Episode Accountability Model, which will require nearly 700 hospitals to implement five procedural episodes: lower-extremity joint replacements, femur fractures, spinal fusions, coronary artery bypass grafts, and major bowel procedures.[vi] CMMI has also begun delivering “shadow bundle” data to participants in select models, so providers can create their own episode-based incentives.[vii]

However, despite this prioritization, federal policies have also hindered specialists’ opportunities to participate in ACOs. For example, within the Medicare Shared Savings Program (MSSP), the largest ACO model in the nation, ACOs that include specialists are more likely to be classified as “high revenue” under program rules. The high-revenue designation requires ACOs to take on higher levels of financial risk. Most recently, CMMI excluded high-revenue MSSP ACOs from participating in the ACO Primary Care Flex model, which is piloting primary care capitation.[viii] In addition, recent policies establishing more stringent electronic Clinical Quality Measure (eCQM) – including adding more measures and narrowing the reporting mechanisms – have a disproportionate impact on large ACOs that include specialists. As a result, ACOs that include specialists have fewer opportunities to participate in innovative care delivery.[ix]

CMMI's interest in specialist VBC integration is shared by other policymakers. In 2020, the Medicare Payment Action Commission (MedPAC), a non-partisan agency that advises Congress on Medicare payment policy, named specialist engagement as a key element of VBC evolution. MedPAC introduced a framework for Medicare AAPMs, including: [x]

1. **Population-Based Payment Models:** Focused on long-term patient relationships (e.g., attribution periods of one year) with accountability for total cost of care, typically with downside risk.
2. **Episode-Based Payment Models:** Specific episodes of care with defined start and end dates that are shorter than a year (e.g., 90 days), typically with downside risk accountability for total costs during the episode period.
3. **Advanced Primary Care Models:** Supplemental funding to support enhanced care coordination and access that is not tied to total cost of care accountability. Funding may involve hybrid fee-for-service (FFS) and capitation, with payment adjusted based on specified quality and utilization measures. Typically limited to primary care practices, with one model available to nephrology practices.

In 2022, MedPAC discussed the need to integrate specialists by embedding episode-based models within population-based models. Advanced primary care models were not included in the discussion of specialist engagement.[xi]

Payers

Many private payers have heavily invested in VBC across their lines of business, including MA, Medicaid Managed Care, commercial, and employer-sponsored plans. Payers operate a combination of APMs, which are tailored to the line of business and the market where they operate. While there is not publicly available data on the proportion of private-sector APMs that focus on primary vs. specialty care, survey data shows that both MA and commercial payers are actively involved in innovative risk-based arrangements in which providers share in savings (e.g., upside risk) and financial losses (e.g., downside risk).

As of 2022, MA plans had the highest VBC penetration of any payer, with 57.2% of MA payments in APMs, of which 38.9% included downside risk. In contrast, a total of 41.5% of Traditional Medicare payments were in APMs, of which 30.2% had downside risk. While fewer commercial payments were in APMs (34.6%), downside risk arrangements grew from 10.6% in 2018 to 16.5% in 2022.[1, xii]

In general, the private sector operates a broader variety of APMs than the federal government, due to the characteristics of the populations they serve and the impact of market conditions on different lines of business. For example, commercial and Medicaid members are generally younger than MA members, which means that different types of specialties may be more relevant (*e.g.*, reproductive health). Commercial members may also be healthier than other populations, meaning that while there may be fewer dollars to save on high-cost episodes, there may be also key opportunities for preventive care. However, member movement between plans due to moving jobs or other eligibility changes significantly limits the potential long-term return on investment for preventive care. This has a strong impact on both commercial and Medicaid plans, which frequently have members enroll in a given plan for less than one year. In addition, employer-sponsored plans may have unique needs based on their workforce's needs and other business priorities.

The diversity of populations and business needs in the private sector has led to substantial growth and innovation in specialty-focused VBC models, as shown in the strategic framework proposed in the next section.

Providers

Providers engaged in VBC are also seeking to engage specialists, both to deliver high-quality care to their patients and to ensure the judicious use of health care dollars. As of 2023, 96% of ACOs reported that specialist engagement was a priority. However, only 11% reported strong alignment with their employed specialists, and 7% with their contracted specialists.[xiii] This gap between the priority designation and the current degree of actual specialist engagement illustrates that specialty integration remains a largely unmet opportunity of VBC implementation.

ACOs reported that their primary strategies for engaging specialists were: (1) involvement in quality improvement projects, (2) the development of care pathways, (3) establishing bundled payment contracts, and (4) providing unblinded reports that share specialist performance by name. In addition, approximately half of ACOs offered specialists financial incentives based on their clinical outcomes (36%), cost outcomes (29%), and patient satisfaction (21%). The top specialties of interest were cardiology, orthopedics, and oncology. ACOs also worked with primary care physicians to establish specialist directories and preferred networks, data sharing on specialist cost, and eConsult programs to help minimize referrals. The primary challenges were the continued predominance of FFS, lack of data, and organizational bandwidth.[xiv]

Since 2019, many new companies focused on VBC have entered the market. While many of these companies are primary care oriented, some are single- or multi-specialty focused.[xv, xvi] In contrast to large organizations that develop specialty engagement strategies and interventions internally, many of these new companies represent the “buy” option for traditional providers and insurers in the well-known “build vs. buy” dichotomy. The new entrants to the market are sometimes referred to collectively as VBC enablers, but they have meaningful distinctions in how they deliver and support patient care through APMs. Many companies were founded to both deliver care and bear financial risk. Other organizations support providers with financial, operational, and technical services, but do not directly deliver patient care.[xvii]

STRATEGIC FRAMEWORK

HCTTF developed a strategic framework to describe the breadth of specialty VBC models in the public and private sectors:

1. Longitudinal Total Cost of Care
2. Conditions & Episodes
3. Performance Incentives

These categories were adopted from the MedPAC framework to encompass the innovations within the private sector, as well as to address the full scope of VBC outside of risk-bearing models. Collectively, these three categories describe the VBC arrangements currently available in both the public and private sectors.

These three model types are frequently layered with one another. For example, Conditions & Episodes may be embedded within Longitudinal Total Cost of Care models. Performance Incentives can be layered on either of these categories. The goal of this layered design is to align incentives for value, quality, and equity across specialties and organizations.

Longitudinal Total Cost of Care

The Longitudinal Total Cost of Care category encompasses arrangements that include both (1) total cost of care responsibility for all health care spending, rather than spending for an individual specialty, and (2) a longitudinal relationship with a patient (e.g., typically a full year). These models may involve either upside or downside risk and may include capitation for specific populations (e.g., CKD stage 3b+). While longitudinal total cost of care models are often built around primary care attribution, they can also be designed around specialty care, especially for conditions where the specialist becomes the patient’s primary point of care for an extended period (e.g., nephrology and oncology).

Many oncology-focused models overlap between the categories of Longitudinal Total Cost of Care and Conditions & Episodes. Due to the high cost of oncology drugs and the long-term nature of cancer care, several types of oncology VBC arrangements straddle the line between these categories. For example, CMMI categorizes its Oncology Care Model and Enhancing Oncology Model – which involve total cost of care responsibility for six-month periods – as episodes rather than population-based models (using the MedPAC framework). However, private payers responsible for analogous total cost of care responsibility for oncology patients for six-month periods consider this to be a longitudinal total cost of care arrangement. Similarly, even if payers only take responsibility for a patient's oncology spend, this generally represents the majority of the patient's total cost of care due to the high cost of chemotherapy, immunotherapy and other oncology treatments. For example, from 2016-2020, oncology drugs alone – without including inpatient or outpatient oncology care – represented 61% of the total cost of care for lung cancer patients and 73% for multiple myeloma patients with Traditional Medicare treated by a cohort of Academic Medical Centers.[xviii] As drug costs continue to increase, oncology treatment represents a growing proportion of the total cost of care.[xix]

Conditions & Episodes

The Conditions & Episodes category encompasses models that focus on patients with a specific condition or episode. In many cases, condition-based models are longitudinal but do not involve total cost of care responsibility. In contrast, episode-based models may involve total cost of care responsibility but generally have a shorter duration (e.g., typically 30-90 days). Both condition- and episode-based models may involve up- or downside risk for target prices or case rates. Since 2018, new CMMI episode-based models have required downside total cost of care risk, but most private payers rely only on upside incentives.

Episode-based models are usually designed around procedures but may also involve acute medical or chronic medical conditions (*e.g.*, oncology). These episode-based models are generally triggered by an admission or procedure (*e.g.*, knee replacement). In contrast, some payers and providers are also engaging in condition-based models involving longitudinal care for patients with specific diagnoses (*e.g.*, knee pain). This condition-based care typically seeks to improve care upstream, prior to the need for more intensive treatments and is often longitudinal.

A single specialty may lend itself to multiple payment types, depending on the patient population. For example, an oncologist working with a patient that has metastatic cancer is likely to be the patient's primary point of contact for the rest of their life, which could be supported by a longitudinal total cost of care model. However, a patient with low-risk breast cancer may only require oncology care for a limited period, which could be supported by an episode-based model.

Performance Incentives

The Performance Incentives category includes arrangements that are not based on total cost of care, but instead may involve centers of excellence and/or pay-for-performance arrangements. Pay-for-performance typically rewards providers based on specific quality or cost metrics, closing gaps in care, and/or developing infrastructure. These programs can support broader engagement from the full range of specialties, by aligning incentives with VBC goals. They may target specialties that influence care for patients with a wide range of conditions (*e.g.*, radiology), and often include providers that cannot or will not bear total cost of care responsibility.

CLINICAL, OPERATIONAL, & FINANCIAL CONSIDERATIONS

This resource explores the clinical, operational, and financial considerations for each of the three model types in our framework, as documented in the figures:

- **Figure 1** describes the high-level opportunities and challenges for each of the three model types.
- **Figure 2** describes examples of each model type using the five specialties highlighted in this resource: orthopedics, oncology, nephrology, gastroenterology, and radiology.
- **Figure 3** describes key care delivery tactics used across model types.
- **Figure 4** describes financial mechanisms, operational considerations, and key challenges for each model type.
- **Figure 5** describes design considerations for episode-based models, including procedural, acute medical, and chronic medical conditions.

The figures were developed based on insights from senior leaders at payer, provider, and VBC enablers that are mostly Task Force members, supported by a literature review. Collectively, these resources describe key elements in the design and implementation of specialty VBC models. These considerations are further described in the case studies presented in the Appendix, which provide operational insights into how organizations are addressing specialty integration across specialties, model types, and lines of business.

OPPORTUNITIES

While specialty VBC is of growing importance to providers, purchasers, payers, and policymakers, this focus is relatively new within the field of VBC. Many providers are still working to identify best practices in specialist engagement, and payers are experimenting with APMs to determine the right mix of incentives to support specialty VBC. Payers may choose to contract directly with a specialty provider or to direct their primary care practices or ACOs to engage the specialist. Similarly, many ACOs share data on high-value specialists to direct referrals from primary care providers (PCPs). There has been an emergence of specialty providers founded to deliver VBC, which accelerates this trend, but even the most well-established of these providers are only a few years old. As the field of specialty VBC integration continues to evolve, there are several key opportunities to advance this work through both financial and non-financial incentives.

Financial Incentives

Payers can increase their investment in specialty VBC and can include financial incentives for providers that take on specialty risk (*e.g.*, shared savings, case rates, capitation). This includes giving risk-bearing providers the flexibility to engage in gainsharing arrangements with individual clinicians and other health care organizations (*e.g.*, nested episodes, sub-capitated arrangements). Payers can also directly support specialist and primary care collaboration by providing funding for e-Consults, care management, and community health integration services.[xx]

In addition, federal policymakers can support this work by maintaining higher financial incentives to participate in AAPMs compared to FFS frameworks. Under current law, Congress has created these incentives through AAPM bonuses and differential conversion factors for the fee schedule. However, these statutory incentives are currently decreasing in size and, without statutory changes, will be eclipsed by FFS incentives in coming years, presenting a key opportunity to refine these financial incentives moving forward.[xxi]

Non-financial Incentives

There are three key non-financial opportunities to incentivize specialist VBC engagement: (1) data sharing, (2) performance measurement, and (3) payment waivers or changes to benefit design. Transparent data sharing between payers and providers is foundational to VBC, by helping providers understand their care delivery patterns, identify opportunities to improve coordination, and reduce costs.[xxii] As discussed above, CMMI has made efforts to increase data transparency by providing “shadow bundle” data to select model participants. However,

CMMI and other payers should continue refining their data sharing efforts to ensure that data is accurate, complete (*e.g.*, not limited to just the ACO patients/providers), timely (*e.g.*, by reducing data lag to increase actionability), and includes relevant benchmarks (*e.g.*, stratified by specialty, geography, and provider type).

Performance measurement – including clinical quality, health equity, and patient-reported outcomes and experience – is another key opportunity to establish non-financial incentives. Clinical quality measures should be relevant to a given specialty and focused on outcomes. Health equity should be incorporated by stratifying other quality measures by key demographic factors (*e.g.*, race, ethnicity, and language).[xxiii] Patient-reported outcomes and experience measures should center the patient voice, but because response rates are often low, this data may need to be aggregated across clinicians or years to ensure sufficient volume to draw meaningful conclusions.[xxiv] Payers can also mitigate the administrative burden on providers in VBC models by minimizing their reporting burden, as was the intent of the Medicare AAPM statutory requirements.

In addition, providers that deliver VBC need greater flexibility in delivering high-quality, equitable care. The Centers for Medicare & Medicaid Services (CMS) can provide this flexibility through payment waivers, while private payers can do so through changes to benefit design. For example, through care delivery waivers that eliminate requirements such as the three-day skilled nursing facility (SNF) rule, providers can deliver appropriate care to patients who require SNF care without keeping them in the hospital for an arbitrary length of time. Eliminating patient out-of-pocket costs through payment waivers or changes to benefit design increases consumer affordability, as well as supports access and equity. For example, when payers eliminate – or allow providers to eliminate – out-of-pocket costs for patients with specific conditions or needs, this eliminates cost as a barrier to health care access.[xxv]

CONCLUSION

Specialty integration is at the cutting edge of VBC design and implementation. By offering a framework for existing public and private sector models to advance specialty VBC, the Task Force seeks to better understand the current state and future opportunities in this field. Future work can focus on implementation resources to support payers, providers, and VBC enablers to get started in specialty integration and build upon their ongoing efforts, while actively engaging patient and consumer perspectives.

Figure 1: VBC Arrangements by Model Type

Model Type	Opportunities	Challenges
Longitudinal Total Cost of Care	• TCOC models incorporate specialty care because all care and costs are included • Longer-term attribution supports prevention and continuity of care • Episodes and performance incentives structures can be aligned with broader quality goals & payments • Risk-bearing entity can set contracting & performance metrics for specialists, advanced practice providers, and allied health providers • Preferred partners/narrow networks build relationships over time • Data on specialty cost and utilization may be available	• Must identify key specialties with opportunities for improvement • Requires sufficient cash and payment flexibility to support downstream funds flow, which may limit opportunities • Ratcheting and re-basing decrease revenue over time and are not easy to predict • Must develop specialist engagement strategies, with different approaches for employed vs. affiliated physicians (e.g., gainsharing, quality performance, benchmarking) • Preferred partners/narrow networks may narrow range of engaged specialties • Navigating complex models may increase pressure on providers • Drug costs prohibitive without adequate risk adjustment, especially for oncology
Conditions & Episodes	• Targeted incentives for specific specialties • Registry-based quality measures available for many specialties (but due to time lags, may not be feasible to directly link patients in registries to those in payment models)	• Requires investment in care coordination with other providers to prevent duplicative or fragmented care • May require complex attribution methodology if overlapping with longitudinal TCOC models • Ratcheting and re-basing decrease revenue over time and are not easy to predict • Limited quality measures for many specialties, including clinical quality and patient-reported experience and outcomes • Complex financial settlement across programs
Performance Incentives	• Aligns incentives with risk-bearing entities, for providers who either cannot or will not take on risk • Gives risk-bearing entities some certainty about cost and quality outcomes when making referrals	• May not be as impactful because fewer dollars are in play and the metrics may be inconsistent between payers • Complex financial settlement across programs

Figure 2: VBC Arrangements by Model Type & Specialty

Model Type	Orthopedics	Oncology	Nephrology	Gastroenterology	Radiology
Longitudinal Total Cost of Care		*Overlapping Case:* • Oncology episodes with long durations (e.g., 6 months) and responsibility for oncology spending (e.g., Evolent, OPN) or for TCOC for oncology patients (e.g., Elevance, EOM model)	• TCOC accountability attributed to nephrologist (e.g., Strive Health, ETC model) • Primary care bears TCOC responsibility and collaborates closely with nephrologist (e.g., Aledade, Trinity Health)		
Conditions & Episodes	• Episode-based models for specific orthopedic procedures (e.g., BCBSM, Vori Health, BPCIA & CJR models)			• Episode or condition-based models for GI patients (e.g., Oshi Health)	
Performance Incentives					• Quality and financial targets for radiologists (e.g., Covera Health)

Note: Specialties listed in order of estimated Medicare Advantage Spend
Acronyms: BPCIA – Bundled Payment for Care Improvement Advanced; CJR – Comprehensive Care for Joint Replacement; EOM – Enhancing Oncology Model; ETC – ESRD Treatment Choices, TCOC – Total Cost of Care

Figure 3: Care Delivery Approaches for Specialty VBC Arrangements

Models	Participants	Setting	Care Delivery Tactics
• **Longitudinal Total Cost of Care** • **Conditions & Episodes** • **Performance Incentives**	• ACOs • Hospitals & health systems • Primary care practices • Specialty practices • VBC enablers	• Inpatient • Outpatient	• Care transitions • Care management with risk stratification • Team-based care • Specialist champions • Integrated behavioral health • eConsults • Virtual-first care delivery

Note: The participant types, care settings, and care delivery tactics cut across all the model types discussed in this report

Figure 4: Financing and Operations for Specialty VBC Arrangements

Model Type	Financial Mechanisms	Operational Considerations	Key Challenges
Longitudinal Total Cost of Care	• Global budgets, capitation, or sub-capitation • Prospective or retrospective targets with reconciliation • Hybrid FFS & partial capitation	• Providers operating under VBC for one payer may still face FFS incentives for other payers • *Capitation*: Provider must develop the actuarial, operational, and legal skills required to develop contractual relationships and make payments to downstream providers	• Must have sufficient reserves to bear total cost of care risk • Due to patient attribution logic, providers may not know which patients they bear risk for in real time • Regulatory requirements vary by line of business (e.g., Medicare, Medicare Advantage, and Medicaid have different federal and state regulations, while commercial must consider contractual rules and regulations) • Retrospective reconciliation: All savings and losses incurred significantly after performance period • Capitation: providers may not have experience setting actuarially sound reimbursement rates and making payments to other providers. Those receiving sub-capitation may not have transparency into how rates are set.
Conditions & Episodes	• Episode- or condition-based payments (prospective or retrospective)	• Overlap with other models complicates which provider does clinical follow up and how financial risk is attributed	• Actuarial impact of overlap with TCOC arrangements • Virtual-first specialists must navigate different contracts & regulations across markets and geographies • Complexity of financial settlement between providers • Requires investment in care coordination with other providers to prevent duplicative or fragmented care
Performance Incentives	• P4P on quality, gap closure or infrastructure	• Lack of alignment across programs and payers (e.g., for quality metrics or incentive structures) • Limited market penetration	• Complexity of financial settlement between providers • Lack of visibility into overlapping programs, for both risk-bearing entity and downstream providers • Dollars are not very large, limiting potential impact for specialists

Acronyms: FFS – Fee for Service, P4P – Pay for Performance, TCOC – Total Cost of Care

Figure 5: Design Considerations for Conditions & Episode

	Specialties	Key Design Elements
Procedural Episodes	• Orthopedics • Gastro-enterology*	• Procedures lend themselves to bundles because they have defined triggers and generally have established clinical guidance for follow up, as well as quality measures agreed to through specialty societies • To achieve shared savings from the payer, providers must target pre- and post-op processes rather than the procedure itself, since the DRG represents a fixed amount of reimbursement • Episodes must have sufficient volume to prevent small-volume variation (e.g., 100 episodes per provider per year may be a good baseline to control for low-volume variation, but imposing this as a hard minimum could limit contracting opportunities to just the highest volume providers) • Episodes must have sufficient post-discharge spending for meaningful cost reduction (e.g., joint replacement), so payers should avoid procedures with little to no post-discharge spending (e.g., percutaneous coronary intervention) • May be difficult to agree on contractual terms for post-discharge spending, especially outside of Traditional Medicare (e.g. episode duration, included costs) • Risk adjustment is essential, especially for clinical factors, health-related social needs, and functional status (e.g., patient living in a nursing home prior to episode)
Conditions & Episodes	• Gastro-enterology*	• While medical episodes are more complicated to design, acute episodes have relatively clear triggers (e.g., acute myocardial infarction) • Acute medical episodes generally have higher post-discharge spending than procedures, but it may be harder to influence due to patient complexity and comorbidities, making risk adjustment even more essential (as well as problems above re: volume and contract terms)
Performance Incentives	• Nephrology • Oncology • Gastro-enterology*	• Chronic medical episodes face many of the same challenges as acute medical episodes, and are also harder to define, because it may be difficult to identify a triggering event (as well as problems above re: volume, risk adjustment, and contract terms) • Some medical episodes may be defined through inpatient admissions but require extensive medical follow-up (e.g., sepsis, stroke), requiring a strong hand-off to a provider with a longitudinal relationship with the patient • Condition-based models may be defined by diagnosis codes and continue for a calendar year – and some may overlap with longitudinal TCOC models (e.g., nephrology, oncology)

APPENDIX

PAYER & PROVIDER CASE STUDIES

The appendix presents 10 case studies from payers, providers, and VBC enablers that are implementing specialty models. These case studies provide operational insights into how organizations are addressing specialty integration across specialties, model types, and lines of business.

HCTTF developed these case studies in collaboration with each organization. We relied on the organizations' internal analyses to present their care delivery model and financial results, and we make no claims about the replicability of the models presented. We offered each HCTTF member organization the opportunity to participate, and the case studies presented here include those that volunteered to share their model and experience publicly.

Established in 2014, the Health Care Transformation Task Force brings together patients, payers, providers, and purchaser representatives to act as a private sector driver, coordinator, and facilitator of delivery system transformation. In addition to serving as a resource and shared learnings convener for members, the Task Force is also a leading public voice on value-based payment and care delivery transformation.

Aledade

Nephrology Case Study

Aledade

Aledade, the nation's largest network of independent primary care providers, provides actionable insights and dedicated support for clinicians to keep their patients healthy while generating more revenue. One way Aledade supports PCPs is by identifying high-risk patients and helping PCPs refer patients to clinically relevant specialty programs. In 2022, Aledade piloted a specialized kidney care management (KCM) in collaboration with VillageHealth, a subsidiary of DaVita. This program targets patients with advanced chronic kidney disease (CKD) and aims to reduce unplanned dialysis starts and hospitalizations. Aledade evaluated the pilot in a randomized quality initiative. Per the internal evaluation, the pilot reduced hospitalizations by 32% and saved $5,500 per member per year (PMPY) after the Medicare Shared Savings Program (MSSP) stop loss provision was applied ($13,400 PMPY without the stop loss provision). Based on this evidence, which is undergoing peer review for publication, Aledade expanded the program in 2023 to all their ACOs.

The KCM program involves a dedicated care team led by a registered nurse who manages patient care comprehensively. This team connects patients with nephrologists of the patient's choosing, provides tailored education, supports insurance and medication management, develops individualized treatment plans, and coordinates care with PCPs and nephrologists. The program's focus on proactive care includes helping patients plan for home peritoneal dialysis, home hemodialysis, in-center hemodialysis, conservative therapy/hospice, or preemptive transplant options. Aledade covers the full cost of KCM, ensuring no financial burden for patients or PCPs.

KCM involves strong coordination between PCPs, Aledade, VillageHealth, and patients. Leveraging an internally built and hosted machine learning model to identify high-risk patients from claims and clinical datasets, Aledade identifies individuals with stage 4 and 5 CKD who would be most likely to benefit from the intervention. Aledade then flags these identified patients in the Aledade population health tool (the "Aledade App"), which enables PCPs and their teams to perform core workflows, such as wellness, transitions of care support, quality, and care program referrals for patients in Aledade risk contracts. The Care Programs list within the App facilitates appropriate referrals to high-value programs like KCM and advance care planning. Once patients have been referred to the program, VillageHealth then reaches out to the patient – making multiple attempts if needed – to invite them to join KCM on behalf of the PCP. After a patient enrolls in KCM, VillageHealth provides the patient with specialized care management, while communicating regularly with the patient's PCP and nephrologist to ensure that care remains coordinated.

Because Aledade partners with independent PCPs in risk contracts, the business model for the program hinges on Aledade's ability to support PCPs in delivering successful population health management interventions. In the case of KCM, Aledade works closely with PCPs to educate them about the program, tightly linking the clinical case with the business case: creating savings through improved patient outcomes and reduction of preventable spend. Because of this alignment, and the technology-supported workflow, Aledade and VillageHealth have seen roughly 60% of the identified patients referred by PCPs to the program. The patient engagement rate has also been high – upwards of 30% of those referred – largely due to the ability to "link" the offering to the patient's PCP during the outreach phase. Notably, the KCM program's success does not rely on either sub-capitation or narrow networks, but instead plugs the gaps with specialized care management delivered virtually. Aledade and VillageHealth believe that this disease management approach succeeded where many prior CMS demonstrations failed because it had stronger, more aligned financial incentives, closer coordination with primary care, and more sophisticated targeting of high-risk patients amenable to the intervention. This program offers a template for ACOs to consider targeted care management offerings that can successfully achieve savings and improve patient outcomes within their risk contracts. In 2024, Aledade is continuing to test additional programs that follow this template for new condition areas like congestive heart failure.

Aledade's KCM program provides a robust example of how ACOs can implement effective, value-driven care models. By aligning incentives and enhancing care coordination, this program offers a scalable template for achieving both clinical and financial success in value-based care arrangements.

Blue Cross Blue Shield of Michigan

Orthopedics & Global Specialty Strategy Case Study

Blue Cross Blue Shield of Michigan (BCBSM) has been investing in VBC for 20 years, with the launch of the Physician Group Incentive Program (PGIP). This upside-only incentive program increased primary care provider VBC capacity through investments in care management, integrated behavioral health services, and other forms of advanced primary care. In 2019, BCBSM built upon its previous work by introducing the Blueprint for Affordability Program, a total cost of care model through which providers take on two-sided risk. BCBSM shares data with providers related to specialist cost and quality, supporting their ability to make informed referrals for their patients.

Blueprint is the backbone of the organization's VBC strategy, covering about 50% of BCBSM commercial and MA members. In addition, BCBSM seeks to engage specialists directly through two programs:

1. **Orthopedics Episodes:** BCBSM offers episode-based payments for hip and knee replacement and is exploring the development of condition-based models as well.
2. **Value-Based Reimbursement for Specialists:** BCBSM offers upside incentives to specialists based on their performance across multiple quality metrics.

Together, these programs seek to engage specialists in improving quality and taking responsibility for the total cost of care.

Since 2018, BCBSM has offered voluntary orthopedic episodes for hip and knee replacement, for both MA (upside only) and commercial episodes (two-sided risk). These episode-based payments have achieved significant savings of approximately $5,000 per episode for commercial members and $1,000 per MA episode. The independent orthopedists that joined the program achieved savings by shifting care to ambulatory settings where clinically appropriate, as well as the use of optimal care pathways for post-acute care. For example, lower-risk patients were discharged to home rather than a skilled nursing facility, and physical therapy plans were tailored to individual patient needs to promote recovery.

BCBSM defines episodes using the CMMI Comprehensive Care for Joint Replacement model's criteria. BCBSM then applies a prospective target price, which aligned better with the BCBSM total cost of care models than retrospective targets. Orthopedists receive ongoing performance data from BCBSM to help them identify quality improvement opportunities and coordinate care. This program overlaps with the VBC incentives available to primary care providers, creating alignment between primary care and orthopedists.

As orthopedists have adopted these care patterns into their standards of care, BCBSM believes there are limited opportunities for additional savings. Therefore, BCBSM decided to terminate the commercial component of the program in 2024. Instead, BCBSM is exploring the development of condition-based models that focus on care for patients with a given diagnosis, rather than being triggered by a procedure. For example, a condition-based model might focus on a patient with knee pain, in contrast to a procedural episode focused on knee replacement. This approach would be scalable to other specialties, such as oncology, cardiology, nephrology, and other musculoskeletal conditions. A key question will be how to address overlap with the Blueprint program because, if BCBSM carves out high-cost specialties, it could limit the financial opportunity for primary care practices.

In addition to the orthopedics episodes, BCBSM engages all specialties through Value-Based Reimbursement for Specialists (VBR), an upside reward based on cost, utilization, quality, and infrastructure metrics. There are three categories of specialist VBR:

1. **Population-based analytics:** Available to all specialists in PGIP. In 2024, the reward is tied to total cost of care, cost trend, and a global quality index based on over 40 metrics from the Health Effectiveness Data and Information Set, or HEDIS. In addition, there were specialty-specific measures for 13 specialty types.
2. **Practice-level engagement:** Available to specialists in specific programs related to team-based care, including care management, medication-assisted treatment for opioid use disorder, and collaborative care management for behavioral health.
3. **Collaborative Quality Initiatives:** CQIs are intensive collaborations between BCBSM, hospital systems, practices, and clinicians. Each focus on best practices within specific specialties, setting targets and measures required to earn the VBR, and evaluated by clinical registry analytics.

VBR is paid through claims by upwardly adjusting commercial FFS rates when specialists achieve specific performance requirements. This structure allows BCBSM to use their existing claims infrastructure while moving to VBC.

Since 2009, most of the yearly budget increase has been directed to VBR. Therefore, practitioners who aren't engaged in PGIP and receiving VBR are limited in their opportunity to increase their reimbursement over time. In the 2023-2024 performance year, specialists were eligible to earn 2% to 41% above FFS rates. BCBSM will continue to evolve specialist value-based reimbursement into an increasingly actionable program addressing cost, quality, and utilization, with a focus on measuring specialists on the care they deliver and aligning rewards for quality care.

Covera Health

Radiology Case Study

Covera Health partners with radiologists to improve diagnostic accuracy, increase quality, and support population health management, with the goal of aligning financial incentives with payers and risk-bearing providers. Radiology is critical to making diagnoses, determining whether patients require surgery or costly interventions, and assessing the response to treatment. Because radiology impacts the diagnostic portion of a patient's care, it cuts across episodes of care that are managed by other physicians and specialties, such as primary care, orthopedics, oncology, and gastroenterology. Therefore, radiology does not lend itself to total cost of care accountability, but instead presents an opportunity to incentivize radiologists to participate in VBC through pay-for-performance incentives.

As a Patient Safety Organization (PSO) through the Agency for Healthcare Research and Quality, Covera works with radiologists as a trusted source to evaluate performance and support quality improvement. PSO's confer federal confidentiality protections for the collection, analysis, and sharing of patient safety data and information between providers and across state lines in a privileged, peer-protected environment that promotes shared learning. To do this, Covera uses its technology platform to assess radiologists' performance at scale, by using artificial intelligence to assess radiological images and natural language processing to analyze radiology reports. This supports standardized, ongoing measurement and feedback to radiologists on their quality performance. In addition, Covera provides insights on conditions that may be visible in imaging and are relevant to preventive care, such as evidence of osteoporosis on a chest x-ray.

Through their Centers of Excellence program, Covera is partnering with radiology practices to evaluate the impact of high-quality radiology on downstream health care costs and utilization, using methodology validated by Milliman.[xxvi] Based on these findings, Covera hopes to establish pay-for-performance programs with payers and other providers in VBC arrangements. Because most radiologists are new to VBC, Covera advocates for a staggered implementation:

1. **Year 1:** Incentivize providers to develop the infrastructure for data-sharing
2. **Year 2:** Define quality metrics and establish quality performance benchmarks
3. **Year 3:** Drive quality improvement for specific quality measures

These arrangements would incentivize radiologists to join the program by paying for quality and encouraging referrals to high-quality providers. For example, Covera is currently working with BCBSM on a statewide quality improvement program, which designates high-quality radiologists as Centers of Excellence. Covera hopes to collaborate on pay-for-performance incentives for radiologists in Michigan moving forward.

Covera believes that the advances in AI, combined with pressure from radiology work force shortages, has created a key opportunity to move radiology toward VBC. However, this will require (1) acknowledging the role that radiological quality plays in both preventive care and episodes, (2) balancing the need for rapid innovation with appropriate safeguards for the broader adoption of AI, and (3) achieving sufficient scale in VBC programs to drive meaningful change.

Evolent

Oncology Case Study

evolent

Evolent partners with health plans and providers to improve outcomes for patients with complex conditions, with oncology as one of the organization's key focus areas. The oncology solution takes a systemic approach that addresses the clinical, financial, and technological barriers that often stand in the way of patients receiving high-quality care with the best available medical evidence.

At the center of Evolent's clinical interventions are its high-value Oncology Precision Pathways, which guide providers to the highest quality treatment options based on the patient's cancer, stage, treatment history, and biomarkers. Drawing on the constantly evolving evidence base, these pathways give preference to regimens that offer the greatest efficacy and lowest toxicity, with cost serving as a "tiebreaker" between clinically equivalent options. All clinical guidelines and pathways are set based on consensus from an expert scientific advisory board of oncologists practicing in community and academic settings.

In addition to identifying preferred therapies, Evolent's pathways program also steers providers away from a small number of low-value regimens. These regimens, which receive a "black-box warning" from Evolent, typically represent extremely high-cost drugs that achieve clinical outcomes that are no better and potentially even inferior to alternative treatment options.

Because clinical guidelines cannot account for every situation, Evolent expects oncologists to have approximately 70-80% compliance with their clinical guidelines. Yet, while pathways are essential, on their own they are unlikely to drive consistent behavior change. Evolent's solution retools the ecosystem around oncology to drive more pathway-adherent selections.

On the provider side, Evolent accomplishes this through financial alignment and integrating with established workflows. Through Evolent's portal, oncologists can quickly enter information for each patient to see the preferred regimens for their specific case. This portal is integrated with one major electronic health record, and Evolent is working to integrate with others.

The clinical pathways program creates an upside-only, pay-for-performance incentive system. Clinicians are rewarded for guideline-concordant care, paid through a quarterly bonus pool and with monthly status updates on the size of the bonus. Evolent also

reimburses oncologists for their time if they reach out for a peer-to-peer call. However, if an oncologist prescribes a drug that comes with a “black box” warning, this will reduce the size of their bonus. Drawing on the principles of behavioral economics, the downward adjustments are several times higher than the upward adjustments, creating strong incentives to avoid these low-value regimens, even in the absence of downside risk.

Evolent also partners with health plans to take capitated risk for medical oncology and radiation oncology. In general, Evolent takes risk for Medicare Advantage Part B claims, including drugs, and in some cases also takes risk on Part D claims or Part A claims (including oncology-specific emergency department and inpatient use). Evolent has also taken risk for Medicaid and exchange plans. As part of these arrangements, Evolent will frequently take responsibility for developing an oncology network and paying claims. In most markets, Evolent relies on the pay-for-performance incentive system described above for medical oncologists.

In cases where Evolent is responsible for paying oncology claims, the organization has also run sub-capitation programs with radiation oncologists and bundled payments with medical oncologists. These programs create incentives for providers to select therapies that improve patient outcomes, make care more affordable, and reduce patients’ time commitments associated with their care.

As Evolent’s oncology program evolves, it has begun to engage directly with patients and primary care providers (PCPs) through pilot programs. Evolent provides PCPs with oncologist quality and cost dashboards and offers to facilitate referrals. Evolent also provides wrap-around care navigation services in cases where one is not already in place by the oncology practice or the plan. For these patients, Evolent care navigation specialists assess patient’s health-related social needs, such as transportation, food insecurity, and financial stress, and connect patients to community-based organizations that can address these needs. These specialists also support patients with symptom management and palliative care needs. If successful, Evolent plans to expand the pilot to other markets.

Elevance Health

Oncology Case Study

Elevance Health

Elevance Health takes a whole-health approach to meaningfully improve the health of the people and communities they serve. Through its affiliated companies, Elevance Health serves more than 115 million people, including 46.9 million within its family of health plans. To better serve members' oncology needs, affiliated health plans have collaborated with Carelon, the company's health services business, to develop an oncology value-based care (VBC) program: Carelon's Oncology Medical Home (OMH).

The OMH program includes: (1) benefit design and treatment pathways, (2) oncology VBC incentives, and (3) resources to support oncologists and members. Carelon deploys this program with both internal and external health plans to engage both members and oncology practices, to support the delivery of high-quality care and optimal patient outcomes.

1. **Benefit design and treatment pathways:** Carelon collaborates with health plans to establish medical benefits, by identifying oncology treatments covered by the plan's policy, such as those meeting National Comprehensive Cancer Network's Category 1 and 2a guidelines. In addition, Carelon develops nationally recognized oncology pathways to promote optimal treatment. Carelon Cancer Treatment Pathways, developed with a panel of oncologists, highlight evidence-based high-value treatments for specific clinical scenarios and considers the member's cancer type, stage, progression, and biomarkers.[xxvii] The optimal treatment regimens are published on a publicly available website and within the provider portal.
2. **Oncology VBC incentives:** To encourage the use of clinical pathways, Carelon provides incentives to oncologists in alignment with the recommended treatment pathway. Additionally, oncologists receive shared savings based on their total cost of care, if they meet quality standards. Within the OMH model, Carelon works with oncology practices to take accountability for both the cost and quality of oncology care, using several key metrics: (a) adherence to clinical guidelines, including treatment pathways and anti-emetic drug prescribing; (b) rate of potentially avoidable inpatient admissions and emergency department visits; and (c) multiple quality metrics reflect optimal, patient-centered end of life care that encourages oncology practices to address the complex needs of members with advanced cancer.
3. **Resources to support providers and members:** Carelon supports oncologists by aligning with the latest clinical pathways, sharing actionable data, coordinating care, and providing wrap-around services. Oncology Practice Enablement Clinicians (oncology nurses, PAs, pharmacists, and social workers) meet with oncology practices at least quarterly to

review quality metrics and patient-level data. Providers have access to this data through a dashboard within the Carelon portal – the same portal used by providers for utilization management submission and review. This provider-facing dashboard displays patients undergoing oncology treatment, the rate at which they are being treated in accordance with applicable pathways, and which patients are engaged with a Carelon Cancer Care Navigator.

Carelon also offers three key programs that engage members directly. For each member-facing program, Carelon seeks to avoid duplicative outreach by coordinating closely with oncology practices. They provide members with wrap-around resources while supporting oncology members:

- **Cancer Care Navigation:** Carelon Cancer Care Navigators are key to improving treatment adherence and patient health outcomes by:
    - Reaching out to high-risk members
    - Identifying and closing care gaps
    - Educating members about their condition, treatment, and plan coverage
    - Making referrals to palliative care
    - Connecting members to community-based organizations to address health-related social needs such as housing and food insecurity
    - Providing on-call support to members during times of concern or uncertainty and triaging for immediate care vs an in-person or virtual appointment with the provider.
- **Hospice:** Elevance Health affiliated health plans offer benefit coverage for hospice care in the last year of life, as well as for concurrent ongoing oncology cancer treatment.
- **Palliative Care:** Carelon's palliative care provider group contracts directly with health plans to provide palliative care services in the member's home or via telehealth. Carelon's palliative care clinicians emphasize collaboration with the patients' oncology providers. The program aims to adopt an interoperable electronic medical record, to enhance provider communication and improve collaboration between oncologists and palliative care providers.

Kaiser Permanente

Oncology Case Study

KAISER PERMANENTE

Kaiser Permanente (KP) is the nation's largest integrated health plan and provider organization, with over 12 million members in 8 states and the District of Colombia. KP's unique structure fully aligns incentives between the plan and the provider, with shared objectives to deliver high-quality care that drives outcomes and total cost of care savings. With VBC as the foundation of its model, each KP patient has a relationship with a primary care provider PCP who delivers care and makes referrals to specialists as needed. KP is focused on expanding access to cancer subspecialists to all cancer patients, no matter where they receive day-to-day care. As part of this work, KP has heavily invested in a national oncology care infrastructure, by developing a virtual cancer care platform as well as a Cancer Support Line to help patients with their non-clinical needs.

In 2022, KP launched a virtual cancer care platform to help remove geographic barriers to cancer care. This program was the result of eight years of planning, in which KP worked with its oncologists to sub-specialize in 11 cancer types: breast, thoracic/lung, gastrointestinal, malignant hematology, central nervous system, gynecologic, genitourinary, head & neck, sarcoma, cutaneous melanoma, and genomics. Oncologists in KP's larger service areas were invited to choose a sub-specialization of interest, allowing them to accept targeted patient referrals, join relevant medical societies, and conduct research. Medical oncologists across KP can now submit a consultation to a designated cancer subspecialist, who will review the patient's full medical record and lab results, provide diagnoses, and develop a treatment plan within two business days of receiving the virtual consultation request.[xxviii] Since its launch in late 2022, KP oncologists have delivered over 1,100 expert consults through the virtual cancer care platform.

KP supported this work through large infrastructure investments in the technology needed to deliver this care. For example, KP has developed its own clinical pathway program to identify the most appropriate evidence-based oncology treatment. In 2019, the organization began building the clinical pathway program internally, which includes approximately 150 cancer types and achieves over 70% adherence.[xxix] KP designed the clinical pathway program to minimize oncologists' administrative burden, by integrating it into the electronic health record (EHR) and requiring no more than five clicks to select the appropriate pathway. While KP considered buying an external clinical pathway program, the vendor solutions available would have required as many as 27 clicks and may have required a separate login. Similarly, KP has built order sets for the most appropriate genomics tests for each cancer type, which are embedded in the EHR.[xxx] As a result, this program minimizes the burden of selecting from over 500 genomics tests, while also targeting resources appropriately.

KP is continuing to provide their patients with more ways of accessing experts and supportive care, regardless of their physical location. For example, KP is piloting a program to provide cancer patients with easily accessible second opinions from KP cancer subspecialists so patients can better understand and make decisions about their treatment plans and options. In addition, KP has developed a prospective complex case review platform to proactively identify the highest risk patients, using machine learning and algorithms to analyze EHR data. When the program identifies a patient with certain complex or rare cancers, this triggers an expert review, so that the KP cancer subspecialist reviews the patient's information and provides guidance before the patient meets with their frontline oncology team. This pilot seeks to improve the patient experience by providing timelier clinical guidance, while minimizing the need to retrospectively adjust treatment plans.

In addition to transforming their clinical care delivery, KP developed a Cancer Support Line to address oncology patients' non-clinical needs. KP designed the Cancer Support Line as a one-stop shop for oncology patients to speak directly with a dedicated Cancer Support Specialist (CSS) – without a phone tree or chat bot – about non-clinical issues that concern them. With mentorship from the American Cancer Society and patient partners that helped to design the Line, KP trained experienced Member Services staff to address questions related to oncology patients' financial concerns, health-related social needs, cancer education, and support services, including mental health, peer mentors, and wellness coaches, and more. If applicable, the CSS connects patients to local community-based organizations or transportation benefits to address social needs. The CSS can also connect patients back to their care team to address any clinical questions.

In 2024, KP concluded a 12-week pilot of the Cancer Support Line, which reached over 1,000 patients in one KP market.[xxxi] The evaluation found that the top concern related to patient out-of-pocket costs, and that 96% of patients said that their needs were addressed by the Cancer Support Line. Based on the strength of these results, in fall 2024, KP will begin rolling out the Cancer Support Line to additional KP markets. KP is committed to this investment in patients' health-related social needs and other non-clinical services, in order to increase patient access to oncology care and improve clinical outcomes.

KP's size and degree of integration supports its ability to scale its oncology programs nationally. However, to roll out these programs successfully, KP intentionally incorporated best practices in implementation science and change management. KP has a stakeholder engagement structure that includes an appointed national "dyad" of two senior leaders, one from the medical group and the second from the health plan. These senior dyad leaders

collaborate with an Interregional Oncology Chiefs group, a national Cancer Patient Advisory Council, and a Cancer Advisory Board with local administrative dyads in each region to support the design and implementation process. The local dyad leaders help to engage clinicians, including physicians, nurses, and pharmacists, to develop tools and clinical processes that were effective at the local level. KP attributes the success of their oncology programs to the early, consistent engagement and collaborative design with clinicians and patient partners in each region, as well as the willingness to roll out the program at a pace that aligned with local needs.

OPN Healthcare

Oncology Case Study

OPN HEALTHCARE

OPN Healthcare is a technology enabled specialty healthcare company exclusively focused on cancer care. It manages an oncology network, with over 300 affiliated oncologists serving 1.9 million enrollees. With over 25 years of experience in Southern California, OPN primarily takes sub-capitated revenue for oncology patients, delivering care through a network of community-based oncology practices. OPN takes this sub-capitated risk from health plans and risk-bearing provider organizations, with 25% of its revenue based on Medicare Advantage, 33% from commercial plans, and 42% from Medicaid. It also provides oncology Care Management services based on a management fee.

Oncology is one of the most expensive categories of health care, with global spending at $223 billion in 2023 and projected to increase by 83% by 2028.[xxxii] Oncology therapeutic and support drugs drive these costs, particularly emerging treatments such as immunotherapies and personalized vaccines. Clinically, these can lead to better outcomes and often have lower toxicity for many patients, but the costs are exceptionally high (e.g., $8-10 thousand per vial, multiplied across doses, cycles, and potentially years of treatments). For payers and risk-bearing providers, the extreme growth in the cost of oncology treatments is difficult to sustain. For community oncologists, high drug costs are one of the pressures facing their practices. However, it is in the best interest of payers that community oncologists remain open, because the cost of care is lower in the community setting rather than in-patient settings.

OPN has extensive data, sophisticated tools and well-developed infrastructure to bear sub-capitated risk for specialty oncology care, which represents approximately 90% of its business. In the past five years, OPN has expanded outside Southern California, which involves other forms of risk-based contracts such as shared savings arrangements and other APMs that may be more applicable to different market characteristics. OPN seeks to slow the growth in oncology cost while enabling high quality, clinically appropriate care to patients.

OPN has two primary VBC models, which represent a range of approaches to slow the growth of oncology spending:

1. **OPN Care Management Model:** OPN operates a comprehensive platform that offers treatment reviews, utilization management, and patient support that is integrated into current patient workflows, aligns with existing care pathways programs, and provides peer-to-peer subspecialty consultation as well as other patient-related programs.
2. **OPN Network Model:** OPN takes on sub-capitated financial risk as the preferred oncology network, aligns physicians for clinical and financial outcomes, and implements risk sharing and other VBC arrangements for providers.

In both models, OPN engages oncologists by sharing their own performance relative to their peers. OPN seeks to increase adherence to clinical guidelines, incentivize the use of lower-cost drugs, treat patients in lower-cost settings, and increase patient enrollment in clinical trials.

From the patient's perspective, OPN care coordinators connect with patients, coordinate their care with oncologists and other providers, and identify opportunities for palliative care support. The care coordinator also shares personalized nutrition education, enables after hours symptom support, and helps patients obtain financial assistance for medications. If possible, the care coordinator enrolls patients in clinical trials to reduce treatment costs.

Oshi Health

Gastroenterology Case Study

OSHI HEALTH

Oshi Health is a virtual gastrointestinal (GI) clinic that delivers team-based specialty care. The Oshi team includes gastroenterologists, advanced practice providers (APPs), registered dietitians, behavioral health clinicians, and care coordinators. Together, the care team provides individualized care plans and patient education, helps the patient track their symptoms, seeks to identify and address the root causes of their GI symptoms, and guides patients to sustainable symptom control through dietary and behavior change, gut-brain interventions, and optimal medication.

Over 60% of the US population has chronic GI symptoms and over 25% has a diagnosed GI condition, which fall into two primary categories that have distinct patterns of utilization and cost: (1) inflammatory bowel diseases (IBD), which are high-cost chronic conditions that require recurring surveillance visits and procedures, and are often treated with high-cost therapeutics such as biologics, and (2) a broad spectrum of other GI conditions, many of which have highly overlapping symptoms and do not have definitive diagnostic tests or effective drug regimens, but may be triggered by diet or gut-brain interactions. Gastroenterologists also provide critical cancer screening and diagnostic procedures (colonoscopy, endoscopy), which have high FFS reimbursement rates but often long wait times for new patients.

In any given year, approximately half of patients with GI conditions experience symptoms that cause them to seek care, leading to high utilization of endoscopies, diagnostic imaging, emergency department (ED) visits, and repeated visits with GIs and other providers – largely because FFS does not incentivize funding services that prevent these escalations or can intervene in cost-effective ways when urgent symptoms arise.

Oshi diagnoses and treats all GI conditions, including IBD, and has proven that its multidisciplinary care model improves access to care, clinical outcomes, and quality of life for patients while also ensuring high cancer screening rates. Oshi delivers its evidence-based, three-step model at scale, including:

1. **Assessment & Diagnosis** (1-3 weeks): APP tracks down and reviews prior medical records and uses long initial visits (45-60 minutes), including taking in-depth patient histories that include questions patients may not have been asked previously (e.g., history of trauma and other influencers of the gut-brain connection). The APP orders and interprets results of diagnostic testing as needed to make new or confirm existing diagnoses and develops a personalized care plan.

2. **Whole-person therapy** (3-6 months of high-touch multidisciplinary medical care): Treatment by an integrated, dedicated care team, overseen by a gastroenterologist and an APP, with an emphasis on dietary modifications and gut-brain cognitive interventions (e.g., gut-directed cognitive behavioral therapy), until patient-reported symptom control is achieved – the greatest indicator of reduced future health care utilization.
3. **GI medical home** (ongoing care for patients with chronic, moderate to severe GI conditions): Long-term access to multidisciplinary care to maintain symptom control, monitor biomarkers (e.g. inflammation), and quickly and cost-effectively manage any escalations or flares in symptoms.

Oshi coordinates closely with the patient's local PCP and gastroenterologist to deliver clinical updates on the patient's progress and care plan, as well as any changes to medications. In addition, Oshi coordinates referrals to local high-quality GI practices for procedures and infusions in an ambulatory setting if patients do not already have a local gastroenterologist.

In one clinical trial run by a national payer, 92 percent of Oshi patients achieved symptom control in an average of 4 months, resulting in $10,292 total cost of care savings over a six-month period, relative to a matched control group of other commercially insured patients.[xxxiii] These savings were driven by reducing avoidable ED visits and GI-related imaging, surgeries, repeat procedures, and medications. Patients reported fewer symptoms, higher quality of life, lower stress, and fewer days of missed work.

Since their launch in 2020, Oshi has expanded to 44 states and the District of Columbia. Oshi will be fully available nationwide in September 2024, becoming the only national multidisciplinary GI medical practice. Because Oshi's care delivery model is not typically covered by FFS, they contract with employers and health plans and are now an in-network provider for more than 35 million Americans. Plans and PCPs can refer patients to Oshi, and Oshi receives a bundled case rate for each patient they treat, with claims billed at milestones as the patient progresses through the care delivery model and achieves symptom control. Oshi is accountable for reducing total cost of care relative to traditional GI spending under FFS, as well as key metrics for patient outcomes, engagement, and satisfaction. This payment model is live for commercial plans, with Medicare Advantage in development. In the future, Oshi also plans to launch an IBD shared savings arrangement, which would include care coordination payments paid per member per month (PMPM) and guaranteed savings for the risk bearing entity, with any additional savings to be split between the risk-bearer, Oshi and participating local GI practices. Oshi expects to launch this new payment arrangement in 2025.

Strive Health

Nephrology Case Study

strive HEALTH

Strive Health provides VBC for patients with advanced CKD and end-stage kidney disease. Traditionally, nephrology care has focused on dialysis but Strive seeks to identify patients with CKD at earlier stages, to help delay their disease progression and keep them healthier. Strive partners with a total of 6,500 nephrologists and PCPs, to identify shared patients, coordinate care management resources, and align care plans. In total, Strive is accountable for 121,000 patients, representing $4.1 billion in annual medical spending.

Strive delivers whole-person care through its Kidney Heroes® teams, which are led by a nurse practitioner specialized in kidney care, in collaboration with dietitians, care managers, and social workers. Kidney Heroes® teams leverage Strive's proprietary Care Multiplier™ technology platform to create individualized care plans that optimize clinical outcomes and reduce total cost of care. The teams deliver personalized care in clinics, via telehealth and in patients' homes. For example, the care team works with patients to create comprehensive care plans that address all their conditions, not just kidney-related care. In addition, the care team manages medications, coordinates care between specialists and PCPs, and closes gaps in care. The care team also identifies and addresses health-related social needs such as nutrition, in collaboration with local community-based organizations.

Strive's care delivery model has doubled the proportion of patients with an optimal start to dialysis care – avoiding the "crash" onto dialysis – and increased the pre-emptive transplant rate by five times. In addition, Strive has increased home dialysis adoption by 77%, decreased hospitalizations by 49%, and reduced readmissions by 29%. These quality improvements have resulted in 20% savings in the total cost of care.

Strive participates in the Comprehensive Kidney Care Contracting (CKCC) model, a federal VBC model run by the Center for Medicare and Medicaid Innovation, the current iteration of which will continue through 2026. Strive also contracts directly with private payers, health systems, and medical groups, and is currently reimbursed under three categories of VBC arrangements:

1. **Fee-Based Agreements with Pay-for-Performance:** Strive is paid PMPM subscription fees for medical care. PMPM revenue is adjusted based on quality performance.
2. **Performance-Based Contracts:** Strive shares a portion of upside and downside risk with clients. If the client does not see savings, Strive may not earn net revenue.
3. **Premium-Based Full Risk Contracts:** Strive guarantees savings to the client, either as a percent of premium or a target benchmark. Strive is at risk for all medical costs and earns margin on savings above the guarantee.

Over time, Strive’s contracting model is becoming more consistent across clients and markets. Recently the company announced expansions of its contracts with Humana and Oak Street Health. Additionally, the company plans to continue to grow by deepening its presence through the addition of new contracts where Strive has existing operations, expanding its care model, and increasing its levels of risk when justified by a disciplined underwriting process.

Trinity Health serves as an example of how Strive partners with risk-bearing provider organizations. Trinity has 16 Clinically Integrated Networks (CINs) that are accountable for 2 million lives across the country through APMs. The system participates in MSSP ACOs with downside financial risk in 14 markets, as well as 123 non-CMS APM contracts. Beginning in 2022, Trinity Health began partnering with Strive to deliver care to nephrology patients in one of its CINs, Loyola Physician Partners. Under this performance-based contract, Trinity Health identified patients attributed to their ACO who have CKD stage 4-5 or ESRD. Trinity Health also educated the nephrologists and PCPs in their ACO about the role Strive plays in delivering care coordination and medical co-management with the Strive nurse practitioner.

Strives connects with mutually identified patients to engage them in care, prioritizing those with the greatest opportunity to improve outcomes based on their comorbidities and utilization patterns. While the Loyola nephrologists and primary care physicians continue to provide care to their patients – retaining the MSSP attribution and responsibility for total cost of care – the Strive Kidney Heroes® team delivers targeted services to improve outcomes, such as admissions and readmissions, ideally reducing the total cost of care. Process measures such as the percentage of referred patients cared for by Strive, the proportion of patients seen by a nephrologist within six months of starting dialysis and the proportion of patients with advance care plans are also tracked. Strive and Loyola meet regularly to discuss both clinical care and operational processes. The leadership teams in both organizations have a highly collaborative relationship, fostered through weekly leadership meetings when they first launched, which have since tapered to once per month as the partnership has become well-established. Ultimately, both Strive and Trinity Health are aligned in the goal of improving clinical outcomes and quality of life for people with advanced CKD and ESRD.

Vori Health

Orthopedics Case Study

vori health

Vori Health is a nationwide musculoskeletal (MSK) provider that delivers team-based specialty care through virtual and in-person visits. Patients are treated by a team of Vori clinicians, including a specialty MSK physician, physical therapist, health coach, and registered dietitian. The team provides comprehensive treatment for acute, reoccurring, and chronic orthopedic and spine conditions. The physicians – who typically specialize in physical medicine and rehabilitation – provide diagnoses, manage comorbidities and, when appropriate, order evidence-based prescription medications and imaging. In addition to virtual care, Vori also partners with physical therapy providers to offer in-person care in over 200 cities nationwide.

Patients begin their care journeys by first meeting with a Vori physician and physical therapist together during a single virtual visit. This model supports better engagement and outcomes as it allows patients to receive a comprehensive assessment, and a collaboratively developed care plan aligned with the patient's goals. Vori then works with each patient to deliver a range of evidence-based treatments, including physical therapy, health coaching with a cognitive behavioral approach, pain reprocessing therapy, and lifestyle and dietary recommendations. For many patients, these non-invasive treatments lead to better results, particularly for chronic pain patients for whom cognitive interventions have been shown to reduce pain. Vori also offers comprehensive care management services, as well as peer-to-peer e-consults with primary care clinicians and other specialists.

In cases where patients are preparing for surgery, Vori delivers preoperative optimization to screen for and address modifiable patient risk factors. This treatment protocol has been shown to reduce inpatient length of stay, reduce post-operative emergency department use, and increase the proportion of patients that are discharged to their home rather than a facility.[xxxiv]

Vori evaluates their impact on quality by assessing clinical quality metrics, as well as patient-reported outcomes and experience measures. Key findings for patients completing a care program include:[xxxv, xxxvi, xxxvii, xxxviii]

- 83% of patients experience clinically meaningful pain improvement
- 94% of patients report good/excellent mental health
- 61% decrease in patient reported depression & anxiety
- 78% reduction in rate of surgery
- Low patient imaging and injection rates (<3%)

In addition, Vori reports a 4 to 1 return on investment, by comparing MSK spending for attributed patients relative to a historical baseline of similar patients for that payer or employer.[v]

Vori Health holds VBC contracts with insurers, self-insured employers, and clinical practices, with over 95% of their revenue tied to quality, outcomes, and/or cost measures. Vori enters risk-based contracts using two primary financial structures:

1. **Case Rates (Bundles):** Vori negotiates bundled case rates for MSK care for attributed patients. Rates are adjusted based on quality and cost performance with downside risk.
2. **Capitated Risk:** Vori guarantees savings to the client by taking on PMPM rates for attributed MSK patients, with rates tied to quality and cost performance. Capitation is limited to attributed MSK populations, rather than patients' total cost of care for all conditions. Currently, contracts include risk corridors, and Vori is interested in continuing to expand its capitated risk.

As part of these contracts, Vori is willing to assume downside risk if the client adjusts the benefit design to eliminate patient cost-sharing for Vori services. This addresses patient affordability concerns to increase access and engagement.

Vori intentionally established their care model to operate outside traditional hospitals, health systems, and ambulatory surgery centers. Large organizations that conduct orthopedic and spine surgery have a financial interest in surgeries taking place, with these procedures generally anchoring a revenue-generating service line. While many health systems have engaged in VBC through orthopedic surgical bundles, these models have lowered costs primarily in the post-surgical period via reductions in post-acute care spending, rather than assessing whether surgery was the appropriate clinical treatment in the first place. In contrast, Vori intervenes earlier in the care journey, reducing unnecessary surgery by ensuring that non-emergent MSK patients adequately exhaust all non-operative care options before considering surgery. Vori is working to make this model the new standard for comprehensive, patient-centered, appropriate MSK care.

ACKNOWLEDGEMENTS

HCTTF wishes to acknowledge and thank the members of the HCTTF Specialty Strike Group, with support from the Advanced Payer Partnerships Work Group. HCTTF also wishes to acknowledge those that contributed to the case studies and other subject matter experts.

Elyse Pegler
Aetna

Josh Patten
Aetna

Catherine Olexa-Meadors
Aledade

Megan Kancherla
Aledade

Dan Green
Blue Cross Blue Shield of Massachusetts

Duston Pope
Blue Cross Blue Shield of Michigan

Aaron Friedkin
Covera Health

Rich Brown
Covera Health

Ron Vianu
Covera Health

Neal Sheth
Cleveland Clinic

Meredith Day
Elevance Health

Shiny Weerakoon
Elevance Health

Andrew Hertler
Evolent

Ashley Ridlon
Evolent

Kamal Golla
Evolent

Sarah Coombs
National Partnership for Women & Families

Sam Holiday
Oshi Health

Sameer Barry
Oshi Health

Wendy Rossi
Premier, Inc.

Melissa Medieros
Premier, Inc.

Ben Kuhn
Strive Health

Grayling Yarbrough
Sentara Health

Jackson Brasher
Strive Health

Fletcher Pierce
Sentara Health

Max Wigginton
Strive Health

Additional Case Study Participants & Subject Matter Experts

Josh Lowentritt
Aledade

Sean Quintana
DaVita Kidney Care

Peter Wasserman
Aledade

Mary O'Connor
Vori Health

Ashley Yeats
Blue Cross Blue Shield of Massachusetts

Ryan Grant
Vori Health

David Debono
Carelon Health

REFERENCES

i. Huber, K., Gonzalez-Smith, J., Wang, A., Japinga, M., McStay, F., McClellan, M.B. & Saunders, R.S. (2023). Engaging Specialists in Accountable Care: Tailoring Payment Models Based on Specialties and Practice Contexts. *Health Affairs Forefront*. https://www.healthaffairs.org/content/forefront/engaging-specialists-accountable-care-tailoring-payment-models-based-specialties-and (accessed 9/17/24).

ii. Chernew, M. E., Navathe, A., and Masi, P. B. (2024). Medicare and the Health Care Delivery System. *Medicare Payment Advisory Commission*. https://www.medpac.gov/wp-content/uploads/2024/06/Jun24_MedPAC_Report_To_Congress_SEC.pdf (accessed 9/17/24).

iii. Chernew, M. E., Navathe, A., and Masi, P. B. (2024). Medicare and the Health Care Delivery System. *Medicare Payment Advisory Commission*. https://www.medpac.gov/wp-content/uploads/2024/06/Jun24_MedPAC_Report_To_Congress_SEC.pdf (accessed 9/17/24).

iv. CMMI. (2021). Innovation Center Strategy Refresh. https://www.healthaffairs.org/content/forefront/cms-innovation-center-s-strategy-support-person-centered-value-based-specialty-care (accessed 9/17/24)

v. Fowler, L., Fogler, S., Schreiber, Cl., Waldersen, B., Kehoe, G., Roiland, R., Wolf, S., Goldman, A., and Rawal, P. (2024). The CMS Innovation Center's Strategy to Support Person-Centered, Value-Based Specialty Care: 2024 Update. Health Affairs Forefront, April 2, 2024. https://www.healthaffairs.org/content/forefront/cms-innovation-center-s-strategy-support-person-centered-value-based-specialty-care (accessed 9/17/24).

vi. CMMI. (2024). Transforming Episode Accountability Model (TEAM). https://www.cms.gov/priorities/innovation/innovation-models/team-model (accessed 9/17/24).

vii. Alston, M., Champagne, N., DiNinno, D., Kamer, E., and Murphy, C. (2024). Shadow Bundles: A Big Opportunity for MSSP and REACH ACOs. Milliman. https://www.milliman.com/en/insight/shadow-bundles-big-opportunity-mssp-reach-acos (accessed 9/17/24).

viii. Smith, B. & Medeiros, M. (2022). PINC AI™ analysis: hospital-led ACOs perform as well as physician-led models. Premier. https://www.premierinc.com/newsroom/blog/pinc-ai-analysis-hospital-led-acos-perform-as-well-as-physician-led-models (accessed 9/17/24).

ix. Micklos, J. (2024). The ACO Primary Care Flex Model is Well Intentioned, but Will It Move the Needle. HCTTF. https://mailchi.mp/4661bf36b9eb/march_newsletter-13736967?e=ddbf7cb74f (accessed 9/17/24).

x. Gerhardt, G. and Burton, R. (2020). The Evolution of Medicare's Advanced Alternative Payment Models. Medicare Payment Advisory Commission. https://www.medpac.gov/wp-content/uploads/import_data/scrape_files/docs/default-source/meeting-materials/a_apm_medpac_oct2020.pdf (accessed 9/17/24).

xi. Gerhardt, G. and Burton, R. (2022). Integrating Episode-Based Payment with Population-Based Payment. *Medicare Payment Advisory Commission.* https://www.medpac.gov/wp-content/uploads/2021/10/APMs-episodes-MedPAC-March-2022.pdf (accessed 9/17/24).

xii. Health Care Payment Learning and Action Network. (2023). APM Measurement: Progress of Alternative Payment Models. https://hcp-lan.org/workproducts/apm-methodology-2023.pdf (accessed 9/17/24).

xiii. Mechanic, R.F., Secordel, L., Sobul, S., & Perloff, J. (2024). Accountable Care Organization initiatives to improve the cost and outcomes of specialty care. *American Journal of Managed Care*, 30(5): 237-40. https://www.ajmc.com/view/accountable-care-organization-initiatives-to-improve-the-cost-and-outcomes-of-specialty-care (accessed 9/17/24).

xiv. Mechanic, R.F., Secordel, L., Sobul, S., & Perloff, J. (2024). Accountable Care Organization initiatives to improve the cost and outcomes of specialty care. *American Journal of Managed Care*, 30(5): 237-40. https://www.ajmc.com/view/accountable-care-organization-initiatives-to-improve-the-cost-and-outcomes-of-specialty-care (accessed 9/17/24).

xv. Springer, R. (2023). The Value-Based Care Enabler Landscape. *Pitchbook*. https://pitchbook.com/news/reports/q3-2023-pitchbook-analyst-note-the-value-based-care-enabler-landscape (accessed 9/17/24).

xvi. Springer, R. (2024). The Value-Based Care Enabler Landscape: 2024 Update. *Pitchbook*. https://pitchbook.com/news/reports/q1-2024-pitchbook-analyst-note-the-value-based-care-enabler-landscape-2024-update#:~:text=As%20the%20US%20healthcare%20industry%20continues%20its%20transition,reached%20%24902.4%20million%20across%20eight%20deals%20in%202023 (accessed 9/17/24).

xvii. De Lisle, K., Bassano, A., Staheli, J., Morrison, S. & Mannon, M. (2024). Analyzing the expanded landscape of value-based entities. *Health Management Associates.* https://www.healthmanagement.com/wp-content/uploads/HMA_VBP-Entity-Landscape-Report_1.31.2024-updated.pdf (accessed 9/17/24).

xviii. Dreyer, T., Hamilton, E., Desai, B., Kircher, S., Polite, B., Schroeder, C., Hayes-Lattin, B. & Horvath, K. H. (2022). Evaluating the Addition of Clinical and Staging Data to Improve the Pricing Methodology of the Oncology Care Model. JCO Oncol Pract 18, e1899-e1907. https://ascopubs.org/doi/full/10.1200/OP.22.00211 (accessed 9/17/24).

xix. Dreyer, T. (2024). The Key Factors Driving Low Participation in the Enhancing Oncology Model. J Clinical Pathways, 10(1):13-17. https://www.hmpgloballearningnetwork.com/site/jcp/perspectives/key-factors-driving-low-participation-enhancing-oncology-model (accessed 9/17/24).

xx. Wang, A., Huber, K., Gonzalez-Smith, J., McStay, F., McClellan, M.B., & Saunders, R.S. (2023). Next Steps for Engaging Specialty Care in ACO Models. *Health Affairs Forefront*. https://www.healthaffairs.org/content/forefront/next-steps-engaging-specialty-care-aco-models (accessed 9/17/24).

xxi. Chernew, M. E., Navathe, A., and Masi, P. B. 2024. Medicare and the Health Care Delivery System. *Medicare Payment Advisory Commission.* https://www.medpac.gov/wp-content/uploads/2024/06/Jun24_MedPAC_Report_To_Congress_SEC.pdf (accessed 9/17/24).

xxii. Wang, A., Huber, K., Gonzalez-Smith, J., McStay, F., McClellan, M.B., & Saunders, R.S. (2023). Next Steps for Engaging Specialty Care in ACO Models. *Health Affairs Forefront*. https://www.healthaffairs.org/content/forefront/next-steps-engaging-specialty-care-aco-models (accessed 9/17/24).

xxiii. HCTTF. (2024). Advancing Health Equity Within Value-Based Care. https://hcttf.org/the-task-force-releases-advancing-health-equity-within-value-based-care/ (accessed 9/17/24).

xxiv. HCTTF. (2023). Accelerating the Use of Patient-Reported Quality Measures in Value-Based Care https://hcttf.org/accelerating-the-use-of-patient-reported-quality-measures-in-value-based-care/ (accessed 9/17/24).

xxv. HCTTF. (2024). Advancing Affordability in Value-Based Care. https://hcttf.org/advancing-affordability-in-value-based-care-models/ (accessed 10/3/24).

xxvi. Barrington, A., Bell, D., Sun, M., and Yih, S. (2024). Independent review of Covera Health's methodology for quantifying financial impact of the Centers of Excellence program. *Milliman*. https://www.milliman.com/en/insight/independent-review-covera-health-methodology-centers-of-excellence (accessed 9/17/24).

xxvii. Liu, Y., Mullangi, S., Debono, D., Chen, X., Pham, T., Fisch, M. J., ... & Hershman, D. L. (2023). Association between oncology clinical pathway utilization and toxicity and cost outcomes in patients with metastatic solid tumors. JCO Oncology Practice, 19(9), 731-740. https://ascopubs.org/doi/abs/10.1200/op.23.00199 (accessed 7/29/24)

xxviii. Kolevska, T., Brasfield, F.M., Kotak, D., Presti, J., Harzstark, A., Carney, J.F., Rabrenovich, V., Riley-Bowen, M., Hendricks, T., Glinsky, I., Le, M., and McKinney, M. (2023). Implementation of a national cancer subspecialist virtual consult pilot in an integrated health system. JCO Oncol Pract 19, 143-143(2023). https://ascopubs.org/doi/abs/10.1200/OP.2023.19.11_suppl.143 (accessed 9/25.24).

xxix. Ichiuji, M., Asakura, L., Cain, C., Aye, N., Kolevska, T., Chen, D., Brasfield, F.M., and Kotak, D. (2024). Improving routine use of clinical pathway decision support through integration of an EHR with a clinical library resource designed to provide evidence-based guidance within oncology workflows. *BMC Health Serv Res* 24, 560 (2024). https://link.springer.com/article/10.1186/s12913-024-11018-8 (accessed 9/25/24).

xxx. Le, M., Kotak, D., Ridgeway, D., Grewal, K. Lindberg, M, Kolevska, T., McKinney, M., Hanifin, S., Natzke, K., Ritcey, J., Geiss, A., and Khararjian, A. (2022). Benefits of a novel in-line decision support and ordering platform to support genomic test ordering. JCO 40, 431-431(2022). https://ascopubs.org/doi/pdf/10.1200/JCO.2022.40.28_suppl.431 (accessed 9/25/24).

xxxi McKinney, M., Le, M., Kolevska, T., Rabrenovich, V., Saenz, M., Wong, M., Bang, Y., Martin, C., Tenorio, D., Kim, M., Kim, J., Park, J., Quiambao, K., Hahn, M., and Soltesz, J. (2024). Implementation of a patient-centered phone line to address non-medical cancer support needs in an integrated health system. *JCO Oncol Pract 20*, 2024 (suppl 10; abstr 208). https://meetings.asco.org/abstracts-presentations/240352 (accessed 9/25/24).

xxxii. IQVIA. (2024). Global Oncology Trends 2024: Outlook to 2028. https://www.iqvia.com/insights/the-iqvia-institute/reports-and-publications/reports/global-oncology-trends-2024 (accessed 9/17/24).

xxxiii. Berry, S., Verinstein, J., Cook, D., Lahm, M., Chan, W., Allen, J., and Chey, W. (2023). A Virtual Integrated Care Program Improves Patient Outcomes, Engagement, and Satisfaction at Reduced Costs: A Prospective Trial (research abstract and oral presentation). *American Telemedicine Association 2023 Annual Conference & Expo*, March 4-6, 2023 (San Antonio, Texas). https://www.liebertpub.com/doi/10.1089/tmj.2023.29089.abstracts (accessed 9/17/24).

xxxiv. Dlott, C. C., Moore, A., Nelson, C., Stone, D., Xu, Y., Morris, J. C., Gibson, D. H., Rubin, L. E., & O’Connor, M. I. (2020). Preoperative risk factor optimization lowers hospital length of stay and postoperative emergency department visits in primary total hip and knee arthroplasty patients. *The Journal of Arthroplasty*, 35(6), 1508-1515. https://pubmed.ncbi.nlm.nih.gov/32113812/ (accessed 9/17/24).

xxxv. Woznica, D. N., Milligan, M., Krymis, H., Peters, K. C., O'Connor, M. I., & Grant, R. A. (2023). Telemedical Interdisciplinary Care Team Evaluation and treatment of people with Low Back Pain: a retrospective observational study. *Archives of Rehabilitation Research and Clinical Translation*, 5(3), 100269. https://pubmed.ncbi.nlm.nih.gov/37744196/ (accessed 9/17/24).

xxxvi. Validation Institute Report. (2024) https://uploads-ssl.webflow.com/607dd1658eb71ebcf9c05549/659f9507d989400a72d07c84_Validation%20Institute%20Re-Validation%202023.pdf (accessed 9/17/24).